

2SK1579

Silicon N Channel MOS FET

REJ03G0956-0200
(Previous: ADE-208-1296)
Rev.2.00
Sep 07, 2005

Application

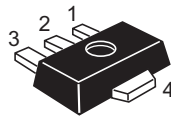
High speed power switching

Features

- Low on-resistance
- High speed switching
- Suitable for low voltage operation

Outline

RENESAS Package code: PLZZ0004CA-A
(Package name: UPAK[®])



1. Gate
2. Drain
3. Source
4. Drain

Note: Marking is "DY".

*UPAK is a trademark of Renesas Technology Corp.

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	V _{DSS}	12	V
Gate to source voltage	V _{GSS}	±7	V
Drain current	I _D	2	A
Drain peak current	I _{D(pulse)} ^{*1}	4	A
Body to drain diode reverse drain current	I _{DR}	2	A
Channel power dissipation	P _{ch} ^{*2}	1	W
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

- Notes: 1. PW ≤ 100 μs, duty cycle ≤ 10%
 2. Value on the alumina ceramic board (12.5 × 20 × 0.7 mm)

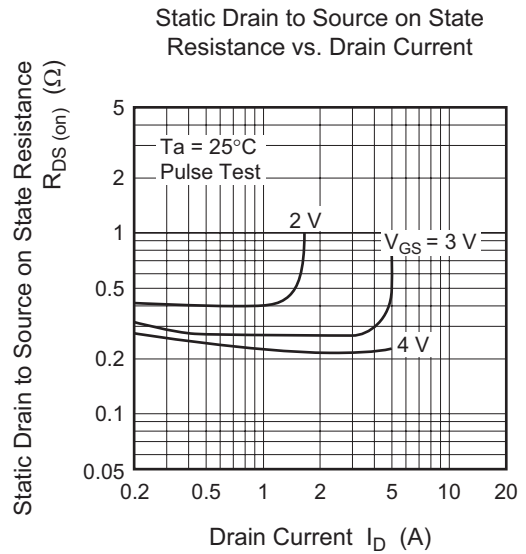
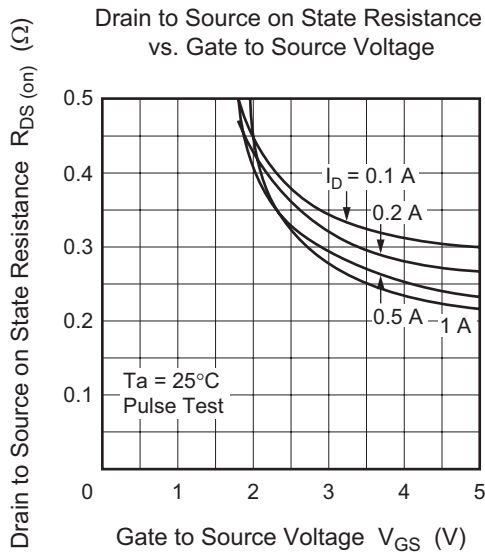
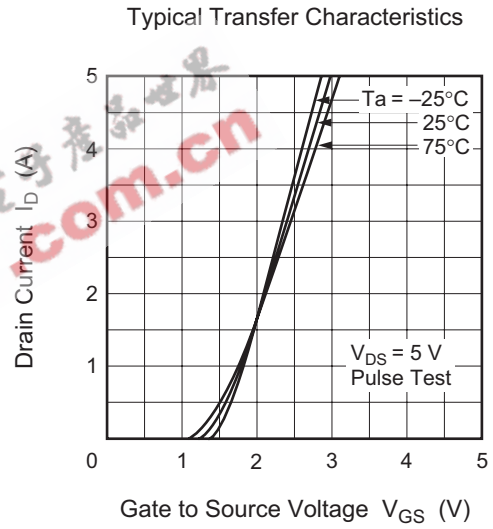
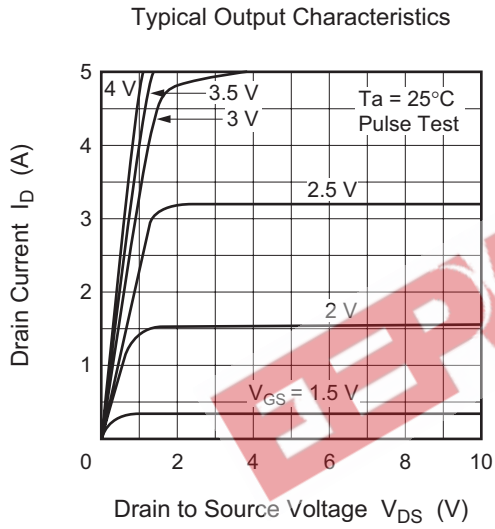
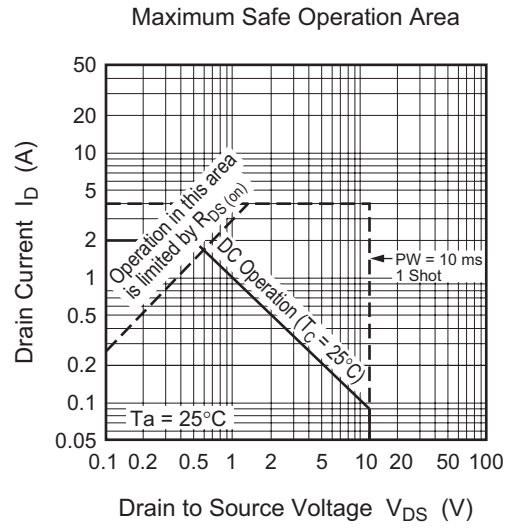
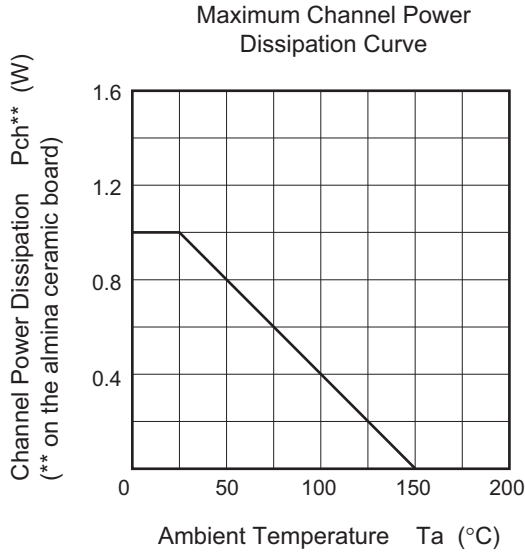
Electrical Characteristics

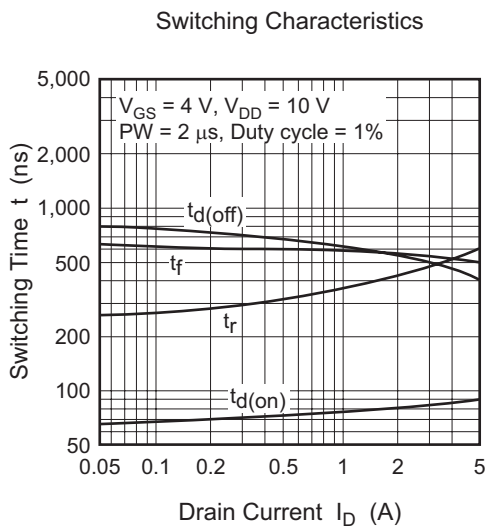
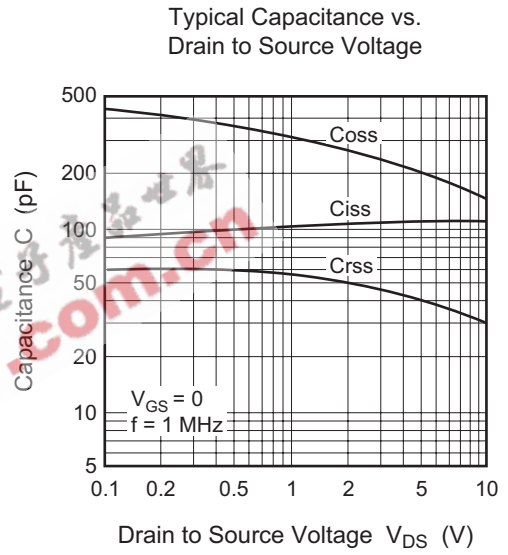
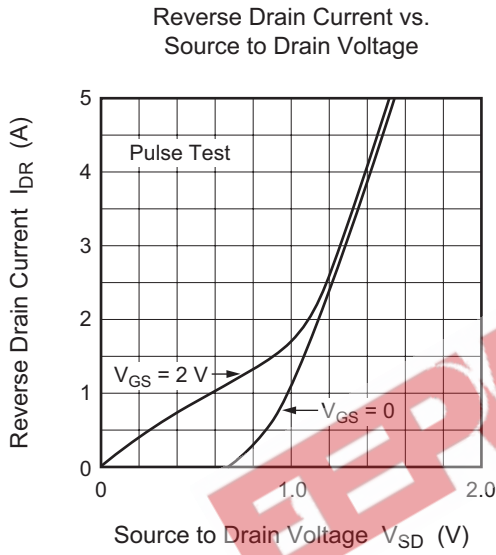
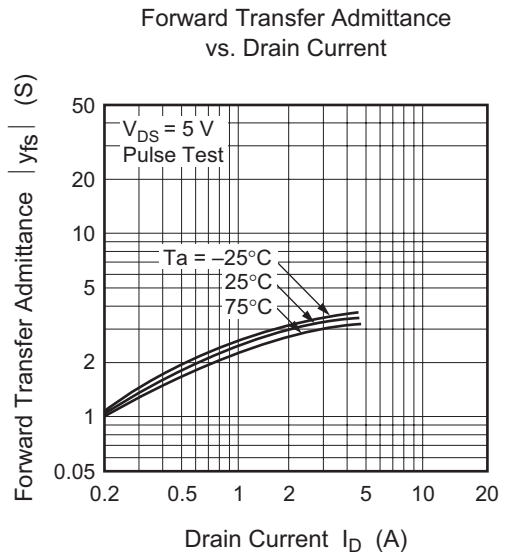
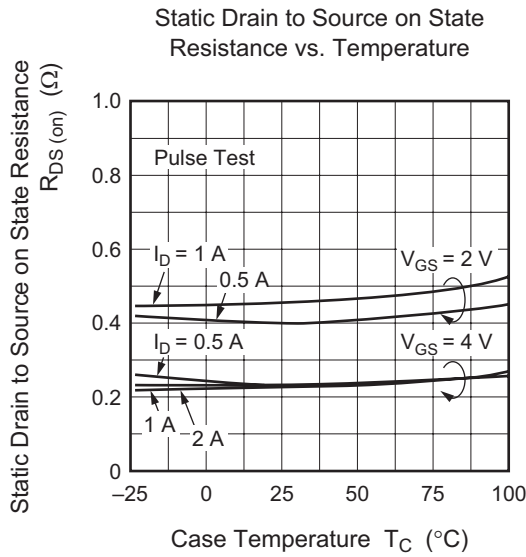
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Drain to source cutoff current	I _{DSS}	—	—	1	μA	V _{DS} = 8 V, V _{GS} = 0
Gate to source cutoff current	I _{GSS}	—	—	±5	μA	V _{GS} = ±6.5 V, V _{DS} = 0
Gate to source cutoff voltage	V _{GS(off)}	0.4	—	1.4	V	V _{DS} = 5 V, I _D = 100 μA
Drain to source on resistance (1)	R _{DS(on)1}	—	0.36	0.7	Ω	V _{GS} = 2.2 V, I _D = 0.5 A ^{*3}
Drain to source on resistance (2)	R _{DS(on)2}	—	0.25	0.35	Ω	V _{GS} = 4 V, I _D = 1 A ^{*3}
DC forward transfer admittance	y _{fs}	1	2.5	—	S	V _{DS} = 5 V, I _D = 1 A, ΔV _{GS} = 0.1 V ^{*3}
Input capacitance	C _{iss}	—	110	—	pF	V _{DS} = 5 V, V _{GS} = 0, f = 1 MHz
Reverse transfer capacitance	C _{rss}	—	30	—	pF	
Output capacitance	C _{oss}	—	150	—	pF	
Turn-on time	t _(on)	—	500	—	ns	I _D = 0.2 A, V _{GS} = 0, V _{in} = 4 V, R _L = 51 Ω ^{*3}
Turn-off time	t _(off)	—	1500	—	ns	

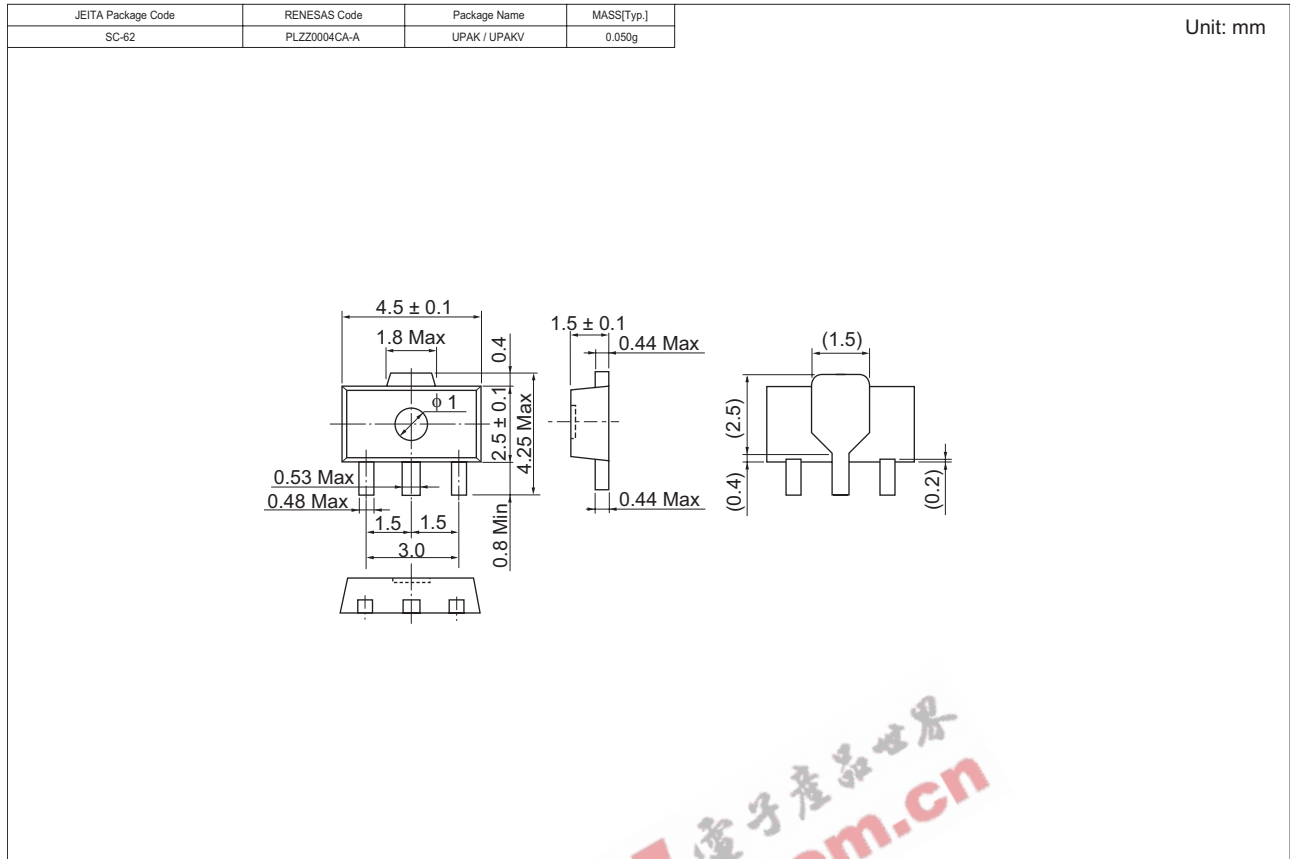
- Note: 3. Pulse Test

Main Characteristics





Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SK1579DY	3000 pcs	Taping, $\phi 178$ mm Reel

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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